

## Abstract

5 The high-pressure pump has a drive shaft (12) and at least one pump element (14), which has a pump piston driven in a reciprocating motion by the drive shaft (12); a ring (18) on which the pump piston (20) is braced via a support element (24) is rotatably supported on a portion (16) of the drive shaft (12) that is disposed eccentrically to its pivot axis (13). The ring (18) and/or the support element (24), at least in their contact region, has many microscopic indentations (42), and a solid lubricant film (40) is applied to the ring (18) and/or to the support element (24), at least in their contact region.